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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,008	10/17/2001	Tonny Chen	BHT-3204-9	3797

7590 02/27/2006

DOUGHERTY & TROXELL  
SUITE 1404  
5205 LEESBURG PIKE  
FALLS CHURCH, VA 22041

EXAMINER
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HUYNH, NAM TRUNG

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/978,008	<b>Applicant(s)</b> CHEN, TONNY	
	<b>Examiner</b> Nam Huynh	<b>Art Unit</b> 2688	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Talwalkar et al. (US 2002/0137458).

A. Regarding claim 1, Talwalkar et al. discloses a repeater system to provide increased signaling in a communications system comprising:

- A receiver (figure 4, item 50) for receiving signals from the communications units in its associated system (page 2, paragraph 22). A transmitter (figure 4, item 64) for transmitting signals to the communications units within its system. It is inherent that the interference of non-selected radio signals is isolated since both the receiver and transmitter only communicate with communications units within its system.
- A signal processor (figure 4, item 56) that is operable to demodulate, decode, and/or process the receiver output signal (page 2, paragraph 22). The signal processor also modulates and encodes information and provides an output signal to the transmitter (page 2, paragraph 25). Since the signal processor generates

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the output signal, it is inherent that the processor processes and furnishes the signal to be transmitted or relayed and performs the function of the "signal amplification unit" in the claim.

- A control bus (figure 4, item 68) that provides information indicative of the operating characteristics of the receiver and/or transmitter (page 2, paragraph 26).
- A CPU (figure 4, item 58) that controls the operation of the transmitter and receiver (page 2, paragraph 26).
- A memory device (figure 4, item 60) that stores data. The CPU stores in memory desired control information that has been extracted from the receiver output signal (page 2, paragraph 23).
- A transmit and receive antenna (figure 4, items 52 and 66).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Talwalkar et al. (US 2002/0137458) in view of McFarlane et al. (US 5,200,955).

A. Regarding claim 2, Talwalkar et al. discloses a repeater system to provide increased signaling in a communications system comprising:

- A receiver (figure 4, item 50) for receiving signals from the communications units in its associated system (page 2, paragraph 22). A transmitter (figure 4, item 64) for transmitting signals to the communications units within its system. It is inherent that the interference of non-selected radio signals is isolated since both the receiver and transmitter only communicate with communications units within its system.
- A signal processor (figure 4, item 56) that is operable to demodulate, decode, and/or process the receiver output signal (page 2, paragraph 22). The signal processor also modulates and encodes information and provides an output signal to the transmitter (page 2, paragraph 25). Since the signal processor generates the output signal, it is inherent that the processor processes and furnishes the signal to be transmitted or relayed and performs the function of the "signal amplification unit" in the claim.
- A control bus (figure 4, item 68) that provides information indicative of the operating characteristics of the receiver and/or transmitter (page 2, paragraph 26).
- A CPU (figure 4, item 58) that controls the operation of the transmitter and receiver (page 2, paragraph 26).
- A memory device (figure 4, item 60) that stores data. The CPU stores in memory desired control information that has been extracted from the receiver output signal (page 2, paragraph 23).
- A transmit and receive antenna (figure 4, items 52 and 66).

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Talwalker et al. discloses that the signal processor performs signal transfer for radio signals but does not explicitly disclose that the signal processor performs signal amplification and error detection. McFarland et al. discloses a repeater for TDMA mobile radio that comprises a signal processing unit that detects the level of the received signal and may also include means for equalization, error detection, and error correction (column 5, lines 36-41). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to follow the teachings of McFarland et al., and implement signal amplification and error detection in the signal processor of Talwalker et al., in order to ensure proper reception/transmission of radio signals according to network or design specifications.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NTH  
2/14/06

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER